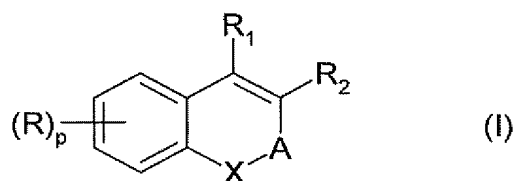


This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for preventing or treating hyperuricemia; or for treating a disorder associated with hyperuricemia; or for and/or one or several associated disorders or diseases; and/or reducing the serum uric acid level of a subject, comprising administering to a subject in need thereof a compound of formula (I) ~~[[7]]~~



in which:

X is O or S;

A is a divalent radical $-(CH_2)_s-CO-(CH_2)_t-$ or $-(CH_2)_s-CR_3R_4-(CH_2)_t-$,

in which $s = t = 0$ or one of s and t has the value 0 and the other has the value 1;

R_1 and R_2 are, each independently; ~~[[5]]~~ a hydrogen atom; a (C_1-C_{18}) alkyl group; a (C_2-C_{18}) alkenyl group; a (C_2-C_{18}) alkynyl group; a (C_6-C_{10}) aryl group optionally substituted by a halogen atom, by an optionally halogenated (C_1-C_5) alkyl group or by an optionally halogenated (C_1-C_5) alkoxy group; or a mono- or bicyclic (C_4-C_{12}) heteroaryl group containing one or more O, N and/or S atoms, which is optionally substituted by a halogen atom, by an optionally halogenated (C_1-C_5) alkyl group or by an optionally halogenated (C_1-C_5) alkoxy group;

R_3 and R_4 are, each independently, a hydrogen atom; a (C_1-C_{18}) alkyl group; a (C_2-C_{18}) alkenyl group; a (C_2-C_{18}) alkynyl group; a (C_6-C_{10}) aryl group optionally substituted by a halogen atom, by an optionally halogenated (C_1-C_5) alkyl group or by an optionally

halogenated (C₁-C₅)alkoxy group; or a mono- or bicyclic (C₄-C₁₂)heteroaryl group containing one or more O, N and/or S atoms, which is optionally substituted by a halogen atom, by an optionally halogenated (C₁-C₅)alkyl group or by an optionally halogenated (C₁-C₅)alkoxy group; or

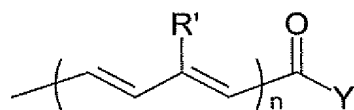
R₃ and R₄ together form a (C₂-C₆)alkylene chain optionally substituted by a halogen atom or by optionally halogenated (C₁-C₅)alkoxy;

R is a halogen atom; a cyano group; a nitro group; a carboxy group; an optionally halogenated (C₁-C₁₈)alkoxycarbonyl group; an R_a-CO-NH- or R_aR_bN-CO- group; an optionally halogenated (C₁-C₁₈)alkyl group; optionally halogenated (C₁-C₁₈)alkoxy; and (C₆-C₁₀)aryl, (C₆-C₁₀)aryl(C₁-C₅)alkyl, (C₆-C₁₀)aryloxy, (C₃-C₁₂)cycloalkyl, (C₃-C₁₂)cycloalkenyl, (C₃-C₁₂)cycloalkyloxy or (C₃-C₁₂)cycloalkenyloxy, in which the aryl, cycloalkyl or cycloalkenyl group is optionally substituted by a halogen atom, by optionally halogenated (C₁-C₅)alkyl or by an optionally halogenated (C₁-C₅)alkoxy; -OH;

R_a and R_b are, each independently, an optionally halogenated (C₁-C₁₈)alkyl; a hydrogen atom; (C₆-C₁₀)aryl or (C₆-C₁₀)aryl(C₁-C₅)alkyl, in which the aryl group is optionally substituted by a halogen atom, by an optionally halogenated (C₁-C₅)alkyl group or by an optionally halogenated (C₁-C₅)alkoxy group); (C₃-C₁₂)cycloalkyl optionally substituted by a halogen atom, by an optionally halogenated C₁-C₅ alkyl group or by an optionally halogenated (C₁-C₅)alkoxy group;

p is 0, 1, 2, 3 or 4;

Z is:

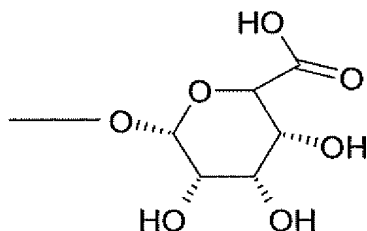


n is 1 or 2;

R' are, each independently, a hydrogen atom; a (C₁-C₅)alkyl group; a (C₆-C₁₀)aryl group optionally substituted by a halogen atom, by an optionally halogenated (C₁-C₅)alkyl group or by optionally halogenated (C₁-C₅)alkoxy; or a mono- or bicyclic (C₄-C₁₂)heteroaryl group containing one or more O, N and/or S atoms, which is optionally substituted by a halogen atom, by an optionally halogenated (C₁-C₅)alkyl group or by an optionally halogenated (C₁-C₅)alkoxy group;

Y is -OH; (C₁-C₅)alkoxy; or -NR_cR_d;

or gluconic acid



R_c and R_d are, each independently, a hydrogen atom; (C₁-C₅)alkyl; (C₃-C₈)cycloalkyl optionally substituted by a halogen atom, by optionally halogenated (C₁-C₅)alkyl or by optionally halogenated (C₁-C₅)alkoxy; (C₆-C₁₀)aryl optionally substituted by a halogen atom, by optionally halogenated (C₁-C₅)alkyl or by optionally halogenated (C₁-C₅)alkoxy;

wherein one, and one alone, of R₁ and R₂ is Z;

or a pharmaceutically acceptable salt thereof with an acid or base, or an ester thereof.

2. (Previously Presented) A method according to Claim 1, wherein A is the divalent radical -(CH₂)₈-CR₃R₄-(CH₂)₁-.

3. (Previously Presented) A method according to Claim 1,

X is O;

A is $-\text{CR}_3\text{R}_4-$ or $-\text{CH}_2-\text{CR}_3\text{R}_4-$, in which the unsubstituted methylene group is bonded to X;

R_1 and R_2 are, each independently, Z; H; $(\text{C}_1-\text{C}_{15})$ alkyl; $(\text{C}_2-\text{C}_{15})$ alkenyl; or phenyl optionally substituted by (C_1-C_5) alkyl, (C_1-C_5) alkoxy, a halogen atom or $-\text{CF}_3$;

R_3 and R_4 are, each independently, a hydrogen atom; a $(\text{C}_1-\text{C}_{18})$ alkyl group; a $(\text{C}_2-\text{C}_{18})$ alkenyl group; a $(\text{C}_2-\text{C}_{18})$ alkynyl group; a $(\text{C}_6-\text{C}_{10})$ aryl group optionally substituted by a halogen atom, by an optionally halogenated (C_1-C_5) alkyl group or by an optionally halogenated (C_1-C_5) alkoxy group; or a mono- or bicyclic $(\text{C}_4-\text{C}_{12})$ heteroaryl group containing one or more O, N and/or S atoms, which is optionally substituted by a halogen atom, by an optionally halogenated (C_1-C_5) alkyl group or by an optionally halogenated (C_1-C_5) alkoxy group;

R is (C_1-C_9) alkyl; (C_1-C_5) alkoxy; phenyl or phenylcarbonyl optionally substituted by a halogen atom, (C_1-C_5) alkyl, (C_1-C_5) alkoxy, $-\text{CF}_3$ or $-\text{OCF}_3$; a halogen atom; $-\text{CF}_3$ or $-\text{OCF}_3$;

n is 1; and

R' is (C_1-C_5) alkyl or $(\text{C}_6-\text{C}_{10})$ aryl.

4. (Previously Presented) A method according to claim 1, wherein

X is O;

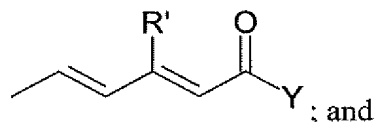
A is $-\text{CH}_2-\text{CR}_3\text{R}_4-$, in which the unsubstituted methylene group is bonded to X;

R_1 and R_2 are, each independently, Z, a hydrogen atom or (C_1-C_5) alkyl;

R_3 and R_4 are, each independently, a hydrogen atom; a $(\text{C}_1-\text{C}_{18})$ alkyl group; a $(\text{C}_2-\text{C}_{18})$ alkenyl group; a $(\text{C}_2-\text{C}_{18})$ alkynyl group; a $(\text{C}_6-\text{C}_{10})$ aryl group optionally substituted by a halogen atom, by an optionally halogenated (C_1-C_5) alkyl group or by an optionally halogenated (C_1-C_5) alkoxy group; or a mono- or bicyclic $(\text{C}_4-\text{C}_{12})$ heteroaryl group containing

one or more O, N and/or S atoms, which is optionally substituted by a halogen atom, by an optionally halogenated (C₁-C₅)alkyl group or by an optionally halogenated (C₁-C₅)alkoxy group;

Z is



R' is methyl or phenyl.

5. (Previously Presented) A method according to claim 1, wherein R₁ is Z.
6. (Previously Presented) A method according to claim 1, wherein R₂ is a hydrogen atom.
7. (Withdrawn) A method according to claim 1, wherein Y is (C₁-C₅) alkoxy.
8. (Previously Presented) A method according to claim 1, wherein Y is -OH; (C₁-C₅)alkoxy; or -NR_cR_d.
9. (Previously Presented) A method according to claim 1, wherein R' is methyl.
10. (Previously Presented) A method according to claim 1, wherein R is (C₁-C₅) alkoxy.
11. (Previously Presented) A method according to claim 1, wherein p is 0, 1 or 2.

12. (Withdrawn) A method according to claim 1, wherein

X is O ;

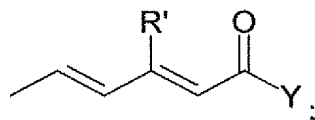
A is $-\text{CH}_2-\text{CR}_3\text{R}_4-$, in which the unsubstituted methylene group is bonded to X;

R_1 is Z and R_2 is H;

R_3 and R_4 are, each independently, (C_1-C_5) alkyl;

R is (C_1-C_5) alkoxy;

Z is



R' is methyl or phenyl; and

Y is (C_1-C_5) alkoxy.

13. (Previously Presented) A method according to claim 1, wherein the compound of formula (I) is

- (2E, 4E)-5-(2-pentyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2Z, 4E)-5-(2-pentyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2,2-dimethyl-6-methoxy-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2,2-dimethyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2Z, 4E)-5-(2,2-dimethyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-[2-(non-6-enyl)-2H-1-benzopyran-3-yl]-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(4-phenyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(6-nonyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;

- (2E, 4E)-5-(6-phenyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2-nonyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(4-methyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2Z, 4E)-5-(2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2-undecanyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2-phenyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(5-methyl-2,3-dihydrobenzoxepin-4-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid; and
- (2E, 4E)-5-(2,3-dihydrobenzoxepin-4-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzoxepin-5-yl)-3-phenylpenta-2,4-dienoic acid;
- (2Z, 4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzoxepin-5-yl)-3-phenylpenta-2,4-dienoic acid;
- (2Z, 4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7,8-dimethoxy-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-2,3-dihydro-7-(para-chlorobenzoyl)benzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-chloro-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;

- (2E, 4E)-5-(3,3-dimethyl-7,8-dichloro-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-bromo-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-fluoro-8-chloro-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-fluoro-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-trifluoromethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-phenyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3,7-trimethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid; or
- (2E, 4E)-5-(9-methoxy-3,3-dimethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;

or a pharmaceutically acceptable ester thereof.

14. (Currently Amended) A method according to claim 1, wherein the disorder associated with hyperuricemia is gout, acute inflammatory arthritis, tophaceous deposition of urate crystals in and around joints, chronic arthritis, deposition of urate crystals in renal parenchyma, urolithiasis, or a related renal disease or gouty nephropathy ~~nephropaty~~ ~~is treated~~.

15. (Currently Amended) A method according to claim 1, wherein the hyperuricemia treated is primary or secondary hyperuricemiae, or the disorder associated with hyperuricemia is hyperuricemiae related to nephropaties, a myeloproliferative disorder, or a condition associated with insulin resistance or transplantation ~~is treated~~.

16. (Currently Amended) A method according to claim 1, wherein the subject has a serum uric acid level, before treatment, equal or above 7 mg/dL (420 $\mu\text{mol/L}$ ~~9.6m/L~~).

17. (Currently Amended) A method according to claim 16, wherein gout or a condition brought about by a high level of uric acid in the joints or kidneys or a serum level over 9 mg/dL (530 $\mu\text{mol/L}$) ~~$\mu\text{mol/L}$~~ is treated.

18. (Previously Presented) A method according to claim 1, wherein the administration is by oral route.

19. (Previously Presented) A method according to claim 1, wherein the administration is once or twice per day.

20-22. (Cancelled)

23. (Previously Presented) A method according to claim 1, wherein the amount of a compound of formula (I) administered is 0.15 to 4 mg/Kg of human body weight.

24. (Previously Presented) A method according to claim 23, wherein said amount is 0.3 to 1.0 mg/Kg human body weight.

25. (Previously Presented) A method according to claim 1, wherein (2E,4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzo-xepin-5-yl)-3-methylpenta-2,4-dienoic acid, or a pharmaceutically acceptable salt or ester thereof is administered.

26-33. (Cancelled)

34. (Withdrawn) A method according to claim 1, wherein an ethyl ester of (2E,4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzo-xepin-5-yl)-3-methylpenta-2,4-dienoic acid is administered.

35. (Previously Presented) A method according to claim 1, wherein R₄ is a hydrogen atom or a (C₁-C₁₅)alkyl group.

36. (Previously Presented) A method according to claim 1, wherein a compound of formula I or a pharmaceutically acceptable salt thereof is administered.

37. (Previously Presented) A method according to claim 1, wherein the compound of formula (I) is

- (2E, 4E)-5-(2-pentyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2Z, 4E)-5-(2-pentyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2,2-dimethyl-6-methoxy-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2,2-dimethyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;

- (2Z, 4E)-5-(2,2-dimethyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-[2-(non-6-enyl)-2H-1-benzopyran-3-yl]-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(4-phenyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(6-nonyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(6-phenyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2-nonyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(4-methyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2Z, 4E)-5-(2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2-undecanyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(2-phenyl-2H-1-benzopyran-3-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(5-methyl-2,3-dihydrobenzoxepin-4-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid; and
- (2E, 4E)-5-(2,3-dihydrobenzoxepin-4-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzoxepin-5-yl)-3-phenylpenta-2,4-dienoic acid;
- (2Z, 4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzoxepin-5-yl)-3-phenylpenta-2,4-dienoic acid;
- (2Z, 4E)-5-(3,3-dimethyl-7-methoxy-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7,8-dimethoxy-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;

- (2E, 4E)-5-(3,3-dimethyl-2,3-dihydro-7-(para-chlorobenzoyl)benzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-chloro-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7,8-dichloro-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-bromo-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-fluoro-8-chloro-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-fluoro-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-trifluoromethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-7-phenyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3,7-trimethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;
- (2E, 4E)-5-(3,3-dimethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid; or
- (2E, 4E)-5-(9-methoxy-3,3-dimethyl-2,3-dihydrobenzoxepin-5-yl)-3-methylpenta-2,4-dienoic acid;

or a pharmaceutically acceptable salt thereof.

38. (New) A method according to claim 1, wherein hyperuricemia is prevented.

39. (New) A method according to claim 1, wherein hyperuricemia is treated.

40. (New) A method according to claim 1, wherein a disorder associated with hyperuricemia is treated.

41. (New) A method according to claim 1, wherein serum uric acid level of a subject is reduced.